



Thermacon Tank Insulation Systems
by Vertarib Inc.
471 N. Broadway, Suite 196
Jericho, NY 11753

June 22, 2012

Attn: Eugene Asicksik, Mayor
c/o Mark Spafford, P.E.
510L Street, Suite 410
Anchorage, AK 99501
907-271-1197
907-271-1415 fax
mspafford@denali.gov

Re: Shaktoolik Water Storage Tank Insulation System Replacement Project

Gentlemen:

Thank you for the opportunity to work with you on the tank in Shaktoolik, AK. I have put together pricing for material, delivery and installation.

Scope of Work

1 Tank – 66' diameter x 32' height –Replacement with new panel system with total 5" insulation for shell and 4' for roof.

We propose the Thermacon Tank Insulation System that is in full compliance with the Specifications will consist of:

Tank Sidewall

- The insulation system shall be comprised of multiple layers. An outer panel, precurved to fit the tank shell curvature, composed of 48" x 96" x .032" aluminum sheathing laminated to two (2") inch thick foil faced (both sides) isocyanurate foam. Inner layers shall consist of a total of three (3") inch isocyanurate foam. Thermacon standard colors are white, black, clear or Sierra Tan. Special colors will be additional charge.
- Fastening System and Weather Sealing: An effective weather tight system shall be provided. The weather tight system shall have a shop-installed, extruded aluminum vertical weather seal, and butyl gasket insert on the end of each panel. The extrusion shall function as a weather sealed overlap; the slotted ends and factory punched slots will provide location and prevent vertical movement of the horizontal banding system.

- An aluminum band shall be provided for sealing the top edge of all panels. The band shall be of sufficient width to insure a 1-1/2 inch minimum lap over the external sheathing.
- Bandsion Clamping System consisting of external Bands and clamps shall be provided for attaching the panels to the tank. The banding and clamping system shall be designed to withstand wind pressures as specified.
- Roof flashing will be provided to cover the roof-wall intersection.
- All manways, nozzles, brackets, vents, and stairways will have the panels cut tight against them and will be sealed with polyurethane caulk or equal.

Tank Roof

- The tank roof insulation shall be of similar construction to sidewall panels composed of .032" inch aluminum outer sheathing Gore Panels comprised of two layers of two (2") inch polyisocyanurate foam with the inner and outer joints sealed.
- The panels shall be secured with the use of 5/16" stainless steel studs welded to the tank roof. These studs will be installed on 3'6" concentric circles and will have 16 GA galvanized steel plates that will serve as a base to screw into in order to secure the outer shell panels.
- The City of Shaktoolik and Denali Government to verify that NST testing of the tank has determined that the tank roof is safe for working on during the installation period.

<u>Price</u>	<u>Shell</u>	<u>Roof</u>	<u>Total</u>
Insulation Materials	\$ 84,225	\$ 50,520	\$ 134,745
Freight-Seattle-Shaktoolik	\$ 43,200	\$ 27,600	\$ 70,800
Installation, includes stripping	\$ 105,200	\$ 54,300	\$ 159,500
Total	<u>\$ 232,625</u>	<u>\$ 132,420</u>	<u>\$ 365,045</u>

Terms

- Allow for 2-3 weeks for submittal drawings (if required).
- No provision for a Performance and Payment Bond has been included in the price above.
- Production will commence 3 weeks after receipt of drawing approval, purchase order and initial payment (35% of total price).
- Product shipment within 3-4 weeks.
- Freight to deliver to Shaktoolik on the Northland Services Sailing leaving Seattle August 10, 2012 is included

- Price does not include any duties, permits or sales and use taxes.
- Installation is included and is scheduled to commence upon receipt of materials in Shaktoolik. Completion date of 9/15/12 not viable option. The cost of stripping existing insulation off tank is included in installation price (cost of disposal of existing insulation not included). Owner to supply lift or acceptable equipment and will be responsible for transport of crates from dock to site. Travel and Subsistence is included in our price for a period of 20 days for two crews. Because of the late start if weather dictates a longer installation period additional charges will apply.

Thank you for giving Vertarib the opportunity to participate in solving your insulation needs. If you have any questions feel free to contact me at your convenience.

Regards,

Thermacon Insulation Systems
by **Vertarib**

Alan Dinow

Alan Dinow
Vice President